

D-52 Behaviour and population of purple coot (*Porphyrio porphyrio*) in three selected habitats in Sri Lanka

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A study of the behaviour and population structure of Purple Coot (*Porphyrio porphyrio*) was carried out during the period March to May 1995, in 3 selected habitats, namely Sri Jayewardenapura, Saragama - (Kurunegala) and Attidiya - Bellanwila.

Behavioural studies were done using the "one-zero" (instantaneous) and "focal animal" sampling techniques. Population estimation was done using "line transect" and "total count" from fixed points. Ethogram analysis indicated a total of 53 events of behaviours. For clarity these 53 events were divided into 14 categories or types as: ingestion, elimination, bathing, cleaning, locomotion, postures, resting, social interactions, courtships, communication, playing, nest building, incubation and thermoregulation.

Some of the events were peculiar to one location e.g. Allopreening at Kurunegala. The behaviours showed variation between dry and wet days, and diurnally. The behavioural events showed significant diurnal fluctuations between the different locations during dry and wet days. However, they were not significant within the site at different time periods during both dry and wet days. The activity pattern indicated high activity during the dry days. During the wet days the activity patterns in the morning and evening were high compared to midday at Sri Jayewardenapura and Attidiya. At Saragama the activities were not significantly different in the morning, mid day and evening during the wet days. The population of Purple Coot varied during the dry and wet days. The population at Sri Jayewardenapura was very high during both periods, in comparison to Saragama; - Kurunegala and Bellanwila - Attidiya respectively.

Reasons for such variations at the sites are discussed in terms of flooding, roosting habitats, human activity and protection. The variation of Purple Coot population in Sri Jayewardenapura may be a reflection of the protection the birds receive at Sri Jayewardenapura, as it is in a high security zone. The absence of human activities therefore, could be considered as beneficial for Purple Coot population. At both Saragama and Attidiya, there was high traditional activities, such as fishing, thus disturbing the birds. The behavioural activity is affected by flooding and human activities.

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